A. AMENDMENTS TO CLAIMS

Please amend the claims as indicated hereinafter.

CLAIMS

What is claimed is:

1. (Currently Amended) A method of relating data stored in one or more content management systems for an enterprise, the method comprising the steps of:

managing a first information object data structure corresponding to a first information object, wherein the first information object is data stored in a file;

managing a first concept data structure corresponding to a first concept;

managing a second concept data structure corresponding to a second concept;

managing a first relationship data structure, wherein the first relationship data structure comprises a first reference to the first concept data structure and a second reference to the second concept data structure;

managing a second relationship data structure, wherein the second relationship data structure comprises a third reference to the first concept data structure and a fourth reference to the first information object data structure;

receiving a request for a document referring to the second concept; and

generating the document referring to the second concept based on a set of information, wherein the set of information comprises the first relationship data structure, the second relationship data structure, the first information object data structure, and the first information object.

~~managing a plurality of information chunks in one or more content management systems, each chunk of the plurality of information chunks comprising a unit of data for storage and retrieval operations; and~~

~~managing a vocabulary database comprising a plurality of data structures describing atomic concepts among names in an enterprise-specific vocabulary and a plurality of data structures describing relationships among the atomic concepts,~~

~~wherein the plurality of data structures describing atomic concepts include a first information object data structure comprising data indicating a first reference to a first chunk in the one or more content management systems, and~~

~~wherein the plurality of data structures describing relationships include a first relationship data structure describing a relationship between the first information object data structure and a second concept data structure of the plurality of data structures describing atomic concepts.~~

2. (Currently Amended) The method of claim 1, wherein the second concept is different than the first concept ~~information object~~.

3. (Currently Amended) The method of claim 1, wherein the first relationship data structure further comprises a reference to ~~describes the relationship involving~~ a third concept data structure ~~of the plurality of data structures describing atomic concepts~~.

4. (Currently Amended) The method of claim 1, wherein the ~~relationships include relationships of~~ second relationship data structure corresponds to a child-of relationship type; wherein the first concept and second concept are each one of a set of atomic concepts; a hierarchy is a subset of the set of atomic concepts related by a series of one or more relationships of the child-of relationship type to a root concept of the set of atomic concepts; and the ~~second~~ first concept ~~data structure describes a concept that~~ belongs to a particular hierarchy having a particular root concept.

5. (ORIGINAL) The method of claim 4, wherein the particular root concept is one of an information type root concept, a document type root concept, a product type root concept, a technology type root concept, a solution type root concept, and a user type root concept.

6. (Currently Amended) The method of claim 5, wherein ~~the first relationship data structure describes the relationship involving a third concept data structure of the plurality of data structures describing atomic concepts; and the third~~ the second concept ~~data structure describes a concept that~~ belongs to a ~~different~~ second hierarchy having a ~~different~~ second root concept, wherein the second root concept is different from the particular root concept.

7. (Currently Amended) The method of claim 1, wherein the first information object ~~chunk~~ is one of a block of text, an application, a query for a database, a vector graphic, an image, audio data, and video data.

8. (Currently Amended) The method of claim 1, wherein the ~~first~~ fourth reference comprises one of a file name, a network resource address, a universal resource locator (URL) address, a record identification in a predetermined database, a record identification in a predetermined content management system.

9. (Currently Amended) The method of claim 1, wherein the first information object is one of a plurality of information objects; the plurality of information ~~chunks~~ objects reside in a plurality of content management systems; and said step of managing the plurality of information ~~chunks~~ objects further comprises employing a data integration tool to retrieve the first ~~chunk~~ information object from a content management system that resides on a remote platform accessible through a network.

10. (Currently Amended) The method of claim 1, further comprising the step of ~~generating and~~ storing ~~a subset of the plurality of~~ the first information ~~chunks~~ object into a content cache based at least in part on data in ~~a~~ the second relationship data structure ~~describing a second relationship of the relationships~~.

11. (Currently Amended) The method of claim 10, wherein the first concept data structure and the second concept data structure are stored in a vocabulary database; and wherein the method further comprises[[ing]] the step of generating and storing a subset of the vocabulary database into a concept cache based at least in part on data in the second relationship data structure.

12. (Currently Amended) The method of claim 11, ~~further comprising the step of generating a page for sending over a network to a client process based on data in~~ wherein the set of information comprises the concept cache and the content cache.

13. (Currently Amended) The method of claim 12, wherein the document ~~page~~ is organized based at least in part on ~~data in a~~ the second relationship data structure ~~in the concept cache~~.

14. (Currently Amended) The method of claim 12, wherein the document ~~page~~ displays information based on at least one information ~~chunk~~ object in the content cache.

15. (ORIGINAL) The method of claim 11, further comprising the step of editing at least one of the concept cache and the content cache.

16. (Currently Amended) The method of claim 10, ~~said~~ further comprising step of generating and storing a ~~the subset of the~~ plurality of information ~~chunks~~ objects, said step of generating and storing the plurality of information objects further comprising

combining at least two information ~~chunks~~ objects of the plurality of information ~~chunks~~ objects into a single information ~~chunk~~ object in the content cache.

17. (Currently Amended) The method of claim 16, wherein a second information object corresponds to a second information object data structure, and a third relationship data structure comprises references to the second information object data structure and the second concept data structure. ~~wherein the at least two information chunks objects have corresponding information object data structures which are related to corresponding concept data structures; and at least two of the corresponding concept data structures are related by the second relationship.~~

18. (Currently Amended) The method of claim 11, said step of generating and storing [[a]] the subset of the vocabulary database into [[a]] the concept cache further comprising de-normalizing the concept cache to improve speed of retrieval by allowing a concept data structure for a concept that participates in more than one relationship to be stored more than once in the concept cache.

19. (Currently Amended) The method of claim 1, ~~said managing the plurality of information chunks comprising~~ further comprising employing a first set of software tools including at least one [[of]] tool[[s]] for defining a type instance for the first information object data structure ~~type and instance~~ and a tool for defining a type and instance for the first relationship data structure ~~type and instance~~.

20. (Currently Amended) The method of claim 1, further comprising the steps of generating and storing a first subset of [[the]] a plurality of information ~~chunks~~ objects into a first content cache for managing content of a Web page.

21. (Currently Amended) The method of claim 20, further comprising the step of managing the first subset by employing a second set of software tools including at least one of: a tool[[s]] for editing the first information object data structure, a tool for editing the first relationship data structure, a tool for populating the first content cache, a tool for populating a first concept cache, a tool for retrieving from the first content cache, a tool for combining two or more information ~~chunks~~ objects into a new information ~~chunk~~ object, and a tool for de-normalizing the first concept cache to improve speed of retrieval by allowing a concept data structure for a concept that participates in more than one relationship to be stored more than once in the first concept cache.

22. (Currently Amended) The method of claim 20, wherein the first subset of the plurality of information ~~chunks~~ objects excludes information ~~chunks~~ objects that have become obsolete.

23. (Currently Amended) The method of claim 20, wherein the first subset of the plurality of information ~~chunks~~ objects excludes information ~~chunks~~ objects that have not been released.

24. (ORIGINAL) The method of claim 20, further comprising the steps of generating and storing a second subset of the first content cache into a second content cache for staging content for the Web page.

25. (Currently Amended) The method of claim 24, further comprising the step of managing the second subset by employing a third set of software tools including at least one of: a tool[[s]] for editing the first information object data structure, a tool for populating the second content cache, a tool for populating a second concept cache, a tool for ensuring each information ~~chunk~~ object in the second content cache has an

information object data structure and a relationship to another concept in the second concept cache, and a tool for forming a search index for the second content cache.

26. (ORIGINAL) The method of claim 24, further comprising the step of replicating the second content cache to one or more Web servers for providing content to a Web page generating process on each of the one or more Web servers.

27.-31. (Withdrawn)

32. (Currently Amended) ~~A method of relating data stored in one or more content management systems for an enterprise, the method comprising the steps of :~~

~~managing a plurality of information chunks in one or more content management systems, each chunk of the plurality of information chunks comprising a unit of data for storage and retrieval operations;~~

~~managing a vocabulary database comprising a plurality of data structures describing atomic concepts among names in an enterprise-specific vocabulary and a plurality of data structures describing relationships among the atomic concepts, and~~

The method of Claim 1, further comprising the step of:

arranging content in [[a]]the document based at least in part on the second relationship data structure.~~data in the vocabulary database, the content based at least in part on an information chunk of the plurality of information chunks~~.

33. (Withdrawn)

34. (Currently Amended) A computer-readable medium carrying one or more sequences of instructions for relating data stored in one or more content management systems

for an enterprise, which instructions, when executed by one or more processors, cause the one or more processors to carry out the steps of:

~~managing a plurality of information chunks in one or more content management systems, each chunk of the plurality of information chunks comprising a unit of data for storage and retrieval operations; and~~

~~managing a vocabulary database comprising a plurality of data structures describing atomic concepts among names in an enterprise-specific vocabulary and a plurality of data structures describing relationships among the atomic concepts,~~

~~wherein the plurality of data structures describing atomic concepts include a first information object data structure comprising data indicating a first reference to a first chunk in the one or more content management systems, and~~

~~wherein the plurality of data structures describing relationships include a first relationship data structure describing a relationship between the first information object data structure and a second concept data structure of the plurality of data structures describing atomic concepts.~~

managing a first information object data structure corresponding to a first information object;

managing a first concept data structure corresponding to a first concept;

managing a second concept data structure corresponding to a second concept;

managing a first relationship data structure, wherein the first relationship data structure comprises a first reference to the first concept data structure and a second reference to the second concept data structure;

managing a second relationship data structure, wherein the second relationship data structure comprises a third reference to the first concept data structure and a fourth reference to the first information object data structure;

receiving a request for a document referring to the second concept; and

generating the document referring to the second concept based on a set of information, wherein the set of information comprises the first relationship data structure, the second relationship data structure, the first information object data structure, and the first information object.

35. (Withdrawn)

36. (Currently Amended) The computer-readable medium of Claim 34, further comprising ~~A computer-readable medium carrying~~ one or more sequences of instructions for relating data stored in one or more content management systems for [[an]] the enterprise, which instructions, when executed by one or more processors, cause the one or more processors to carry out the steps of:

~~managing a plurality of information chunks in one or more content management systems, each chunk of the plurality of information chunks comprising a unit of data for storage and retrieval operations;~~

~~managing a vocabulary database comprising a plurality of data structures describing atomic concepts among names in an enterprise-specific vocabulary and a plurality of data structures describing relationships among the atomic concepts, and~~

arranging content in [[a]]the document based at least in part on the second relationship data structure. ~~data in the vocabulary database, the content based at least in part on an information chunk of the plurality of information chunks.~~

37. (Withdrawn)

38. (Currently Amended) A system for relating data stored in one or more content management systems for an enterprise, comprising:

means for managing a first information object data structure corresponding to a first information object;

means for managing a first concept data structure corresponding to a first concept;

means for managing a second concept data structure corresponding to a second concept;

means for managing a first relationship data structure, wherein the first relationship data structure comprises a first reference to the first concept data structure and a second reference to the second concept data structure;

means for managing a second relationship data structure, wherein the second relationship data structure comprises a third reference to the first concept data structure and a fourth reference to the first information object data structure;

means for receiving a request for a document referring to the second concept; and

means for generating the document referring to the second concept based on a set of information, wherein the set of information comprises the first relationship data structure, the second relationship data structure, the first information object data structure, and the first information object.

~~means for managing a plurality of information chunks in one or more content management systems, each chunk of the plurality of information chunks comprising a unit of data for storage and retrieval operations; and~~

~~means for managing a vocabulary database comprising a plurality of data structures describing atomic concepts among names in an enterprise-specific vocabulary and a plurality of data structures describing relationships among the atomic concepts,~~

~~wherein the plurality of data structures describing atomic concepts include a first information object data structure comprising data indicating a first reference to a first chunk in the one or more content management systems, and~~

~~wherein the plurality of data structures describing relationships include a first relationship data structure describing a relationship between the first information object data structure and a second concept data structure of the plurality of data structures describing atomic concepts.~~

39. (Withdrawn)

40. (Currently Amended) The system of Claim 38, further comprising: ~~A system for relating data stored in one or more content management systems for an enterprise, comprising:~~

~~means for managing a plurality of information chunks in one or more content management systems, each chunk of the plurality of information chunks comprising a unit of data for storage and retrieval operations;~~

~~means for managing a vocabulary database comprising a plurality of data structures describing atomic concepts among names in an enterprise-specific vocabulary and a plurality of data structures describing relationships among the atomic concepts, and~~

means for arranging content in [[a]]the document based at least in part on the second relationship data structure. ~~data in the vocabulary database, the content based at least in part on an information chunk of the plurality of information chunks~~.

41. (Withdrawn)

42. (Currently Amended) A computer system for relating data stored in one or more content management systems for an enterprise, the computer system comprising:

[[a]]one or more computer-readable mediums ~~for storing a plurality of information chunks in one or more content management systems, each chunk of the plurality of information chunks comprising a unit of data for storage and~~

~~retrieval operations, and a vocabulary database comprising a plurality of data structures describing atomic concepts among names in an enterprise-specific vocabulary and a plurality of data structures describing relationships among the atomic concepts, wherein the plurality of data structures describing atomic concepts include a first information object data structure comprising data indicating a first reference to a first chunk in the one or more content management systems, and the plurality of data structures describing relationships include a first relationship data structure describing a relationship between the first information object data structure and a second concept data structure of the plurality of data structures describing atomic concepts; and~~

for managing a first information object data structure corresponding to a first information object;

for managing a first concept data structure corresponding to a first concept;

for managing a second concept data structure corresponding to a second concept;

for managing a first relationship data structure, wherein the first relationship data structure comprises a first reference to the first concept data structure and a second reference to the second concept data structure;

for managing a second relationship data structure, wherein the second relationship data structure comprises a third reference to the first concept data structure and a fourth reference to the first information object data structure; and

one or more processors configured ~~for managing the plurality of information chunks, and managing the vocabulary database.~~

for receiving a request for a document referring to the second concept; and

for generating the document referring to the second concept based on a set of information, wherein the set of information comprises the first relationship

data structure, the second relationship data structure, the first information object data structure, and the first information object.

43. (Withdrawn)

44. (Currently Amended) [[A]] The computer system of Claim 42, further comprising: ~~for relating data stored in one or more content management systems for an enterprise, the system comprising:~~

~~a computer-readable mediums for storing a plurality of information chunks in one or more content management systems, each chunk of the plurality of information chunks comprising a unit of data for storage and retrieval operations, and a vocabulary database comprising a plurality of data structures describing atomic concepts among names in an enterprise-specific vocabulary and a plurality of data structures describing relationships among the atomic concepts; and~~

one or more processors configured for ~~managing the plurality of information chunks, managing the vocabulary database, and~~ arranging content in [[a]]the document based at least in part on the second relationship data structure. ~~data in the vocabulary database, the content based at least in part on an information chunk of the plurality of information chunks.~~

45. (Withdrawn)

46. (Cancelled)

B. REPLACEMENT DRAWINGS

FIG. 4C and 4F were objected to under 37 CFR 1.83(a) as being of insufficient quality to permit examination. Replacement drawings for 4C, 4D, 4E, 4F, 4G, and 4H are attached on separate replacement sheets herewith. Each of the drawings was modified to improve the quality of the drawing or meet formal requirements.